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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,233	08/22/2003	Christopher M. Paterson	20501/524	1380

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THE OLLILA LAW GROUP LLC
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SUITE 300
BOULDER, CO 80302

EXAMINER

GRAHAM, GARY K

ART UNIT	PAPER NUMBER
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1744

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/646,233

Applicant(s)

PATERSON ET AL.

Examiner

Gary K. Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-21 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) 7,9-14 and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 08 May 2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-3, 6, 15-17 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741).

The patent to Krasznai discloses the invention, a vacuum cleaner brushroll, substantially as is claimed. Krasznai discloses (see figs. 3,4) a brushroll body (65) with at least one row (76) of bristle tufts. The row of tufts is comprised of both short, stiff bristle tufts (70b) and long, flexible bristle tufts (70a). The short tufts have fewer bristles than the long tufts (col.2, lines 1+). The tufts have different diameters (col. 5, lines 40+).

The patent to Krasznai discloses all of the above recited subject matter with the exception of the different tufts (short, long) being at first and second angles with respect to a radius direction of the brushroll body.

The patent to Stubbs discloses angling of bristle tufts (2, figs.3,4a) with respect to a radius direction of the brushroll body (3). Such angling is to increase the dust collecting property of the brush by causing a flick action of the tufts. Stubbs sets forth that the angle chosen is in the range of 1-6 degrees and is determined by bristle material and tuft length. Thus tufts of different lengths will have different angles.

It would have been obvious to one of skill in the art to angle the tufts of Krasznai, as clearly suggested by Stubbs, to increase the dust collecting property of the brush by causing a flick action of the tufts. It should also be noted that claims 1 and 15 do not set forth that the first and second angles are different. Each being oriented at an angle. Angling of the tufts of Krasznai will result in all the tufts being angled with respect to the brushroll body. **Further**, as Krasznai discloses tufts of differing lengths, such will have differing angles, as suggested by Stubbs, such that they achieve the proper flick action.

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Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741), as applied to claims 1 and 15 above, and further in view of Taylor (US patent 2,459,007).

The patents to Krasznai and Stubbs disclose all of the above recited subject matter with the exception of the different length tufts being made of different material.

The patent to Taylor discloses a vacuum brush roll (fig.2) with both long, flexible tufts (19) and short, stiff tufts (18). Taylor discloses that differences in tuft flexibility can be achieved with different diameter bristles and/or different materials (see col. 2, lines 53+).

It would have been obvious to one of skill in the art to use different material to achieve the differences in flexibility for the bristles of Krasznai instead of or in addition to the different diameter bristles, as clearly suggested by Taylor, to enable increased control of the flexibility of the bristles. Such would also enable same size tufts to be used for both tufts thus providing a uniform row of tufts.

Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741), as applied to claims 1 and 15 and further in view of Newman (US patent 3,188,673).

The patents to Krasznai and Stubbs disclose all of the above recited subject matter with the exception of different length tufts being of different colors.

The patent to Newman discloses a brush wherein different length tufts are of different colors.

It would have been obvious to one of skill in the art to make the different length tufts of different colors, as clearly suggested by Newman, to enable increased awareness of the different length tufts. Further, merely coloring different components of a structure different colors appears entirely obvious as a purely ascetic change.

Response to Arguments

Applicant's arguments filed 08 May 2007 have been fully considered but they are not persuasive. Applicant argues that Krasznai does not individually disclose the invention as claimed. Applicant argues that Krasznai does not disclose even a single angled bristle tuft. While such is true, Krasznai is not relied upon to show such. Applicant's arguments against the references individually are not persuasive as one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's argument that Stubbs does not disclose a row of bristle tufts including first and second tufts with a first tuft oriented at a first angle and a second tuft oriented at a second angle that is different from the first is noted but not persuasive. Applicant further argues that in Stubbs, all of the tufts of each row (2) are angled and that the teaching of angling an entire row of tufts in Stubbs does not teach the angling of individual tuft of a row with a first tuft at a first angle and a second tuft at a second angle. As set forth in the rejection, Stubbs suggests that tufts of differing lengths will have differing angles to achieve the proper flick action. Employing such in the brush of Krasznai, which has rows with different height tufts within each row, will result in the different height tufts having different angles as claimed. Stubbs shows each row with all tufts having a

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common angle, however, the height of the tufts in each row is the same. Such is not the case in Krasznai where the height of tufts within each row varies between short tufts (70b) and long tufts (70a). If the angle of the tufts were the same for Krasznai, when modified as suggested by Stubbs, proper flick action would not be achieved.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as set forth in the rejection, Stubbs discloses angling of the tufts for a specific reason. Stubbs discloses angling of the tufts to increase dust collection by inducing a flick action to the tuft.

Applicant argues that it is not clear how the introduction of a flick action to the tufts could be a motivation for the combination of references as all brush bristles will experience a flick action when they contact the floor. Such is not persuasive. Even if all brush bristles experience a flick action, Stubbs specifically sets forth increasing or improving the dust collecting property of the brush by setting tufts of bristles in a spindle at an acute leading angle to the direction of rotation. Applicant's argument essentially discounts the teachings of Stubbs by arguing that angling is not necessary. And while such may be true in that angling is not needed for the operation of the Krasznai brush such does not overcome the modification suggested by Stubbs. Even though a change may not be necessary, such does not make it non-obvious or undesirable.

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Applicant's statement that it has been implied that Stubbs includes tufts of multiple lengths is noted but not correct. It has only been stated that Stubbs suggests that tufts of differing lengths will have differing angles to achieve the proper flick action. It is Krasznai that includes the tufts of different length. Thus, modifying Krasznai as suggested by Stubbs results in the invention as is claimed.

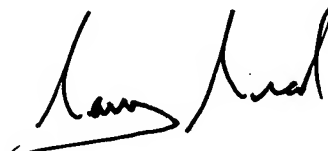
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K. Graham whose telephone number is 571-272-1274. The examiner can normally be reached on Tuesday to Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gary K Graham
Primary Examiner
Art Unit 1744

GKG
09 May 2007